



Preface

FESCA 2005, the *Second International Workshop on Formal Foundations of Embedded Software and Component-based Software Architectures*, was held on the 9th April 2005 as a satellite event of ETAPS 2005 in Edinburgh, Scotland. The aim of this workshop was to bring together researchers from academia and industry interested in formal modelling approaches as well as associated analysis and reasoning techniques with practical benefits for embedded software and component-based software engineering.

Component-based software design has received considerable attention in industry and academia since object-oriented software development approaches became popular. Recent years have seen the emergence of formal and informal techniques and technologies for the specification and implementation of component-based software architectures. With the growing need for safety-critical embedded software, this trend has been amplified.

Formal methods have sometimes not kept up with the increasing complexity of software. For instance, a range of new middleware platforms have been developed in both enterprise and embedded systems industries. Engineers often use semi-formal notations such as UML 2.0 to model and organise components into architectures. FESCA aims to address the open question of how formal methods can be applied effectively to these new contexts.

For FESCA 2005, we had as an invited speaker José Luiz Fiadeiro, University of Leicester, England. We have accepted a total of 9 papers covering a broad range of topics within FESCA. This ENTCS volume contains one invited paper and 9 long papers presented at the workshop. All papers were reviewed by the program committee consisting of

- Angelo Corsaro (Alenia Marconi Systems, Italy)
- Frederic Doucet (University of California at Irvine, USA)
- Sabine Glesner (University of Karlsruhe, Germany)

- Guenter Kniesel (University of Bonn, Germany)
- Juliana Küster-Filipe (University of Birmingham, UK)
- Chris Ling (Monash University, Australia)
- Julia Padberg (TU Berlin, Germany)
- Iman H. Poernomo (King's College London, UK)
- Ralf H. Reussner (University of Oldenburg, Germany)
- Sandeep K. Shukla (Virginia Tech, USA)
- Jean-Pierre Talpin (IRISA/INRIA, France)
- Heike Wehrheim (University of Oldenburg, Germany)

Finally, we would like to thank the invited speaker and authors of the papers for their contribution to the meeting. A special thanks to Moshe Vardi for participating in the workshop and contributing with lively discussions. Further, we are grateful to Mike Mislove for his help in editing this volume and to Massimo Felici for the work on the local organisation at ETAPS 2005 in Edinburgh.

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10 June 2005